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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/630,947	07/30/2003	Milton Charles Van Noland	RAR467.01	1776

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EXAMINER

MENON, KRISHNAN S

ART UNIT	PAPER NUMBER
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1723

DATE MAILED: 09/21/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

<b>Office Action Summary</b>	Application No. 10/630,947	Applicant(s) VAN NOLAND, MILTON CHARLES	
	Examiner Krishnan S. Menon	Art Unit 1723	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

#### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

#### Status

- 1) ☒ Responsive to communication(s) filed on 30 July 2003.
- 2a) ☐ This action is FINAL.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

#### Disposition of Claims

- 4) ☒ Claim(s) 1-61 is/are pending in the application.
- 4a) Of the above claim(s) 38-51 is/are withdrawn from consideration.
- 5) ☒ Claim(s) 52-61 is/are allowed.
- 6) ☒ Claim(s) 1-8 and 17-37 is/are rejected.
- 7) ☒ Claim(s) 9-16 is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

#### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 30 July 2003 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

#### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All    b) ☐ Some \*    c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

#### Attachment(s)

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)                        | 4) <input type="checkbox"/> Interview Summary (PTO-413)                     |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)               | Paper No(s)/Mail Date. _____  |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| Paper No(s)/Mail Date _____  | 6) <input type="checkbox"/> Other: _____                                    |

### **DETAILED ACTION**

Claims 1-61 are pending as originally filed.

### ***Election/Restrictions***

Restriction to one of the following inventions is required under 35 U.S.C. 121:

- I. Claims 1-37 and 52-61, drawn to centrifugal separator and method of separating, classified in class 210, subclass 378 and 210/787.
- II. Claims 38-51, drawn to method of separating, classified in class 210, subclass 767.

The inventions are distinct, each from the other because of the following reasons:

Inventions II and I are related as process and apparatus for its practice. The inventions are distinct if it can be shown that either: (1) the process as claimed can be practiced by another materially different apparatus or by hand, or (2) the apparatus as claimed can be used to practice another and materially different process. (MPEP § 806.05(e)). In this case the process as claimed can be practiced with another materially different apparatus such as a settling tank.

Because these inventions are distinct for the reasons given above and have acquired a separate status in the art as shown by their different classification, restriction for examination purposes as indicated is proper.

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Because these inventions are distinct for the reasons given above and the search required for Group II is not required for Group I, restriction for examination purposes as indicated is proper.

During a telephone conversation with Richard Ryan on 9/15/05 a provisional election was made without traverse to prosecute the invention of group I, claims 1-37 and 52-61. Affirmation of this election must be made by applicant in replying to this Office action. Claims 38-51 are withdrawn from further consideration by the examiner, 37 CFR 1.142(b), as being drawn to a non-elected invention.

***Claim Rejections - 35 USC § 112***

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claims 24-37 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claim 24 recites "said one or more classes of contaminated fluid", which has no antecedent basis.

***Claim Rejections - 35 USC § 102***

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

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(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

1. Claims 1,2,6-8,17,18, and 20-23 are rejected under 35 U.S.C. 102(b) as being anticipated by Graham (US 4,640,772).

Claim 1: Graham teaches a centrifugal filter apparatus having an inlet (50), rotor housing (10), rotor assembly (25), a chamber assembly with more than one chamber (see two filter chambers (5) in figure 9; also the engine sump connected at 55, but not shown in the figures), a base assembly interconnecting the chamber assembly including the engine sump (connected at 55) and the centrifugal separator and configured to direct the fluids selectively into the different chambers (1, figure 2: from inlet 50, the fluid stream splits to the centrifuge through 36 and to filter through 46, the two streams are contaminated, and the separated fluid (by the centrifuge) is directed to the sump through 55; also see figure 9), and an outlet (52). The recitations "configured to receive said fluid ...", "configured to separate said fluid ...", "for receiving and filtering said separated fluid..." and "configured to selectively direct said separated fluid ..." are functional language. While features of an apparatus may be recited either structurally or functionally, claims directed to an apparatus must be distinguished from the prior art in terms of structure rather than function. In re Schreiber, 128 F.3d 1473, 1477-78, 44 USPQ2d 1429, 1431-32 (Fed. Cir. 1997) (The absence of a disclosure in a prior art reference relating to function did not defeat the Board's finding of anticipation of claimed apparatus because the limitations at issue were found to be inherent in the prior art reference); see also In re Swinehart, 439 F.2d 210, 212-13, 169 USPQ 226, 228-29 (CCPA 1971); In re Danly, 263 F.2d 844, 847, 120 USPQ 528, 531 (CCPA 1959).

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"[A]pparatus claims cover what a device is, not what a device does." Hewlett-Packard Co. v. Bausch & Lomb Inc., 909 F.2d 1464, 1469, 15 USPQ2d 1525, 1528 (Fed. Cir. 1990)

Claim 2: bearing assemblies at 17 and 37. The reference does not discuss a bearing assembly, but the rotor 25 has bearing assemblies at the locations as indicated for its free rotation about the axis along the hollow shaft 15. The express, implicit, and inherent disclosures of a prior art reference may be relied upon in the rejection of claims under 35 U.S.C. 102 or 103. "The inherent teaching of a prior art reference, a question of fact, arises both in the context of anticipation and obviousness." In re Napier, 55 F.3d 610, 613, 34 USPQ2d 1782, 1784 (Fed. Cir. 1995) (affirmed a 35 U.S.C. 103 rejection based in part on inherent disclosure in one of the references). See also In re Grasselli, 713 F.2d 731, 739, 218 USPQ 769, 775 (Fed. Cir. 1983). Please note that the claim does not recite any specific type of bearing.

Claim 6: Pressurized fluid: the oil received in the filter from the engine is pressurized (see abstract). Jets – see figure 29, figure 2 and column 2 lines 41-60.

Claim 7: rotor housing has channels in hydraulic communication with the chamber assembly – see figures 2 and 9.

Claim 8: rotor housing has a channel (55), settling chamber in chamber assembly (the engine sump not shown in the figures but connected at 55), channel 55 interconnecting the rotor housing to the engine sump.

Claim 17: one of the chambers configured to receive separated fluid (the sump) and one or more of the chambers to receive contaminated fluid (the filter chambers in figure 2 or 9). Again, "configured to receive ..." is functional language. In re Schreiber.

Claim 18: chambers removably connected to base assembly – filter 5 screws in to bore 43.

Claim 20: A filter disposed in each of the more than one chamber – figure 9. Since the claim language is open-ended ("comprising"), only more than one chamber require to have a filter, not all chambers.

Claim 21: at least one of the chambers have a filter element. 'Configured to eliminate turbulence' is functional language. In re Schreiber.

Claim 22: flow restrictor in the base assembly: see 58, air vent in figure 2 and column 3 lines 7-13: the check valve preventing oil loss is a flow restrictor.

Claim 23: one or more tanks forming the more than one chamber – chamber 5 in figure 2 and 9 are like tanks.

### ***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

2. Claim 3 is rejected under 35 U.S.C. 103(a) as being unpatentable over Graham'772.

Graham teaches all the limitations of claim 1 as given in paragraph 1 above. Instant claim differs from the teaching of Graham in reciting the cone shape of the rotor and housing. Graham teaches a bell shape, which is in part conical. A change in shape is not necessarily patentable. In re Dailey, 357 F.2d 669, 149 USPQ 47 (CCPA 1966) (The court held that the configuration of the claimed disposable plastic nursing container was a matter of choice which a person of ordinary skill in the art would have found obvious absent persuasive evidence that the particular configuration of the claimed container was significant.). Changes of size, shape, etc without special functional significance are not patentable. Research Corp. v. Nasco Industries, Inc., 501 F2d 358; 182 USPQ 449 (CA 7); cert. denied 184 USPQ 193; 43 USLW 3359 (1974)

3. Claims 4 and 5 are rejected under 35 U.S.C. 103(a) as being unpatentable over Graham'772 as applied to claim 3 above, and further in view of Holthius (US 4,024,062).

Instant claims differ from the teaching of Graham in the recitation of the helical wiper. Holthius teaches a helical wiper on a cone-shaped centrifugal strainer (see 10 in figure 3 and column 2 lines 9-12). It would be obvious to one of ordinary skill in the art at the time of invention to use the teaching of Holthius in the teaching of Graham to provide the wiper blades as taught by Holthius for controlling the residence time of the fluid in the centrifuge. Graham teaches the jets as recited in claim 5 – see 29, figure 2.



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4. Claim 19 is rejected under 35 U.S.C. 103(a) as being unpatentable over Graham'772 as applied to claim 1 above, and further in view of Verdegan et al (US 6,709,575).

Claim 19 differs from the teaching of Graham in the chamber having a bottom section removably attached for access to the interior. Verdegan teaches a centrifugal filter system where in the filter chamber 16 has removably attachable sections at both ends for access to the filter – see figures and abstract (drain plug 62 on one end, open mouth with O-ring 28 on the other). It would be obvious to one of ordinary skill in the art at the time of invention to use the teaching of Verdegan in the teaching of Graham to have cleanable filters as taught by Verdegan to further extend the service intervals of the engines as taught by Verdegan – see column 1 lines 1-15.

#### ***Allowable Subject Matter***

Claims 52-61 are allowed.

Claims 24-37 would be allowable if rewritten or amended to overcome the rejection(s) under 35 U.S.C. 112, 2nd paragraph, set forth in this Office action.

Claims 9-16 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

The following is a statement of reasons for the indication of allowable subject matter: The prior arts Graham in view of Holthuis are the closest, which do not teach the centrifugal separator with three separate chambers and each chamber having a

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filter configured to receive one of the separated fluid from the centrifuge as claimed in claim 24. The process claim 52 is allowable because the references do not teach separating a lubricating fluid into three components, and then filtering the three components in their respective chambers. Claims 25-37 depend from claim 24. Claims 53-61 are allowable because of their dependency on claim 52. Claim 10-16 recite allowable subject matter as in claim 24. Claim 9 has allowable subject matter because there is no structure in the references for the chamber assembly having a volatile (or a second) chamber that is hydraulically interconnected with the top of the rotor chamber by the second rotor housing channel.

### ***Conclusion***

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Krishnan S. Menon whose telephone number is 571-272-1143. The examiner can normally be reached on 8:00-4:30.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Wanda L. Walker can be reached on 571-272-1151. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

A handwritten signature in black ink, appearing to read 'KS Menon', with a stylized, cursive script.

Krishnan S. Menon  
Patent Examiner  
9/17/05